



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,830	08/28/2006	Arnold Kravitz	20040055	1370
22590	7590	08/27/2008		
BAE SYSTEMS				
PO BOX 868				
NASHUA, NH 03061-0868				
EXAMINER				
JOHNSON, STEPHEN				
ART UNIT		PAPER NUMBER		
3641				
MAIL DATE		DELIVERY MODE		
08/27/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/590,830

Applicant(s)

KRAVITZ, ARNOLD

Examiner

Stephen M. Johnson

Art Unit

3641

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

1. This Office action is in response to applicant's arguments and amendments as filed on 6/9/2008. Claims 1-4 and 6-21 read on applicant's invention and an action on these claims follows.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 17 and 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Barnes (288).

Barnes (288) discloses a method of countering an airborne threat comprising:

- a) determining threat information; col. 4, lines 51-55
- b) transmitting threat information to a remote device; col. 3, lines 4-8; 38-41
- c) a remote device; TIC; TEWA; Target/Weapon Pairing Knowledge Database; col. 3, lines 8-14; col. 3, line 66 to col. 4, line 26
- d) transmitting source information; see fig. 3
- e) receiving instructions to deploy a countermeasure; col. 5, lines 23-30
- f) deploying said selected countermeasure; col. 5, lines 23-30
- g) referring to the process as a track file; col. 4, lines 21-26
- h) location of the target being a consideration; and see fig. 3
- i) source information is related to time. col. 3, lines 1-20

4. Applicant's arguments are addressed as follows. It is argued that the claim limitation directed to transmitting said threat information to a remote device is not met by Barnes. In response, clearly the threat information (see col. 2, lines 61-67) is and must be transmitted to Target/Weapons Pairing Knowledge Database in order for the prioritizing and pairing to take place (see col. 3, lines 52-65). It is argued that certain passages do not explicitly teach these claim limitations. In response, note that the weapons in each of the assigned zones 1-4 are remote from each other as well as being remote from the control apparatus (Target/Weapons Pairing Knowledge Database), consequently, it is inherent to the reference that there must be communications in order for the device to function even if the explicit methods of such communications are not disclosed. Such communications being necessary as well as well known to one of ordinary skill in this art. It is further argued that a "remote device" is not present. In response, see c) in paragraph 3 above for an explanation of what portions of Barnes meet this claim limitation. It is further argued that the TIC is a trial intercept calculation and cannot meet the claim limitation directed to a "remote device". In response, it is the TIC in combination with the Target/Weapons Pairing Knowledge Database (see col. 3, lines 8-14) that meet this claim limitation. It is further argued that the step of "deploying said selected countermeasure" is not met by Barnes. This is not accurate. Each selection of a particular weapon to counter an incoming target (see col. 3, lines 4-19 for one example) is considered to meet this claim limitation. Note that the term "countermeasure" is considered to be any weapon whose interaction with the assigned target will counter the effectiveness of the target and/or disable or destroy the assigned target. Barnes clearly accomplishes this.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7 and 10-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes (288) in view of Malakatas (388).

Barnes (288) applies as previously recited. However, undisclosed is receiving the threat information from the remote source or remote firing unit. Malakatas (388) teaches receiving the threat information from the remote source or remote firing unit (col. 4, lines 40-54). Applicant is providing a particular location for the sensor providing information about the incoming airborne threat in an analogous art setting with expected or predictable results. It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Malakatas to the Barnes method of countering airborne threats and have a method whose method for receiving information is via a sensor located on the remote source or remote firing unit.

7. Applicant's arguments are addressed as follows. It is argued that the claim limitation directed to "instructing said remote source to deploy said selected countermeasure that is presently available" is not met by Barnes. In response, see col. 5, line 48 to col. 6, line 18 of Barnes. Note that the Target/Weapon Pairing Knowledge Database is considered to meet the claim limitation directed to the remote source and that the deployed and selected countermeasures are considered to be any one of the weapons that is paired to the prioritized targets (see col. 6, lines 8-18 and figs. 3 and 4) via the Target/Weapon Pairing Knowledge

Database. The claim language directed to “instructing said remote source to deploy” is directed to the assignment of each of the weapons systems to deploy against the prioritized targets as prioritized by the Target/Weapon Pairing Knowledge Database (once again see col. 5, line 48 to col. 6, line 18 of Barnes).

8. Claims 1-6 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malakatas (388) in view of Ebert et al. (059).

Malakatas (388) discloses a system for countering airborne threats comprising:

- a) at least one remote weapons system; 112, 212
- b) a countermeasure system; 114, 214
- c) a central countermeasure management system; 12; col. 13, line 19 to
col. 16, line 26
- d) a local countermeasure deployment device; col. 3, lines 23-30
- e) multiple missile threats; col. 5, lines 13-42
- f) communication linkage; 70
- g) a description of the countermeasures available communicated col. 15, lines 15-47
to the central countermeasure management system; and
- h) said CCMS deployed in accordance with a calculated sequence. col. 7, lines 53-67

Malakatas (388) applies as recited above. However, undisclosed is a remote weapon system that is an aircraft with associated countermeasures. Ebert et al. (059) teach a remote weapons system that is an aircraft with associated countermeasures (14, 12, 34, 36, 46). Applicant is substituting one type of remote weapons system with associated countermeasures for another in an analogous art setting as explicitly encouraged by the

primary reference (see col. 3, lines 58-62 of Malakatas) with expected or predictable results. It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Ebert et al. to the Malakatas countermeasure system and have a countermeasure system wherein the remote weapons system is an aircraft.

9. Applicant's arguments are addressed as follows. It is argued that Malakatas fails to teach "a central countermeasures management system". In response, note that it is the software program that assigns threat values for each of the incoming targets and then assigns a particular firing unit (12, 112, or 212) or some combination thereof to respond (col. 13, line 19 to col. 16, line 26) that meets this claim limitation. This software program effectively acts to control which of the different firing units responds dependent upon the location and distance of each incoming threat. Consequently, it meets the claim limitations directed to "a central countermeasures management system". If this program were not present, the firing units would act completely independently with all or none of them independently responding to a particular threat. It is further argued that Ebert fails to teach a "central countermeasures management system" as claimed. In response, since Malakatas clearly meets this claim limitation, there is no requirement that Ebert provide a teaching in this regard.

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Steadman et al. (152).

Steadman et al. (152) disclose a countermeasure system comprising:

- a) at least one aircraft; 140
- b) an airborne countermeasure system; 142a, 144a, 144b
- c) a local countermeasure deployment device; 142b, 150
- d) multiple missile threats; col. 3, lines 56-63
- e) a central countermeasures management system; and 116; col. 4, lines 22-30
and 56-68; and fig. 4
- f) a communication link. 12

12. Applicant's arguments are addressed as follows. It is argued that elements 142b and 150 are local countermeasure deployment devices and not "a central countermeasures management system". In response, 142b and 150 are not being relied upon to meet this claim limitation (see item e) above). It is argued that element 150 is ground based and not a management system. In response, element 150 is not being relied upon to meet this claim limitation and items 142a, 144a, and 144b are airborne and not ground based countermeasure systems. It is argued that substantially more than a receiver and countermeasure is necessary to meet claim limitations directed to a CCMS. In response, note that signal processor 116 is substantially more than a receiver and countermeasure (see col. 4, lines 22-30 and 56-68; and fig. 4).

13. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steadman et al. (152) in view of Barnes (288).

Steadman et al. (152) apply as previously recited. However, undisclosed are a plurality of aircraft for deploying countermeasures. Barnes (288) teaches a plurality of aircraft for

deployment of countermeasures (col. 3, lines 21-27). Applicant is substituting a plurality of aircraft for the aircraft and ground base response countermeasure arrangement of Steadman et al. as explicitly encouraged by the secondary reference (see col. 3, lines 21-27 of Barnes) with expected or predictable results. It would have been obvious to a person of ordinary skill in this art at the time of the invention to apply the teachings of Barnes to the Steadman et al. countermeasure system and have a countermeasure system with different remote site arrangements or locations.

14. Claims 8-9 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. Applicant's arguments filed on 6/9/2008 have been fully considered but they are not persuasive. These arguments have been addressed in the preceding paragraphs.

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Johnson whose telephone number is 571-272-6877 and whose e-mail address is (Stephen.Johnson@uspto.gov). The examiner can normally be reached on Tuesday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 571-272-6873. The Central FAX phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 800-786-9199.

/Stephen M. Johnson/
Primary Examiner, Art Unit 3641

SMJ
August 25, 2008